NASA
Glenn
Success
Stories

NextGen CNS Test Bed

Sensis Corporation

TECHNOLOGY

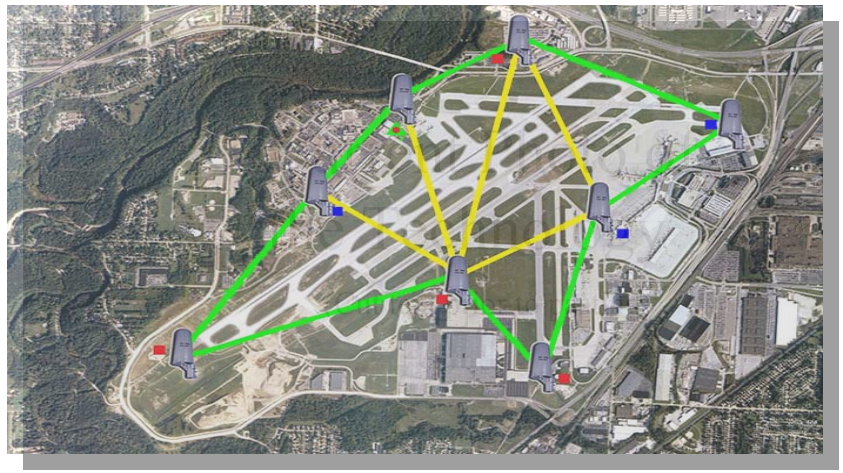
NextGen CNS Test Bed helps provide integrated wireless communication and surface capabilities for safe and efficient airport operations. Glenn Research Center is evaluating WiMax technology in a new protected frequency spectrum for advanced situational awareness and secure information sharing.

COMMERCIAL APPLICATION

- Reduction of runway incursions through direct alerts to the cockpit
- Smooth, efficient, and environmentally sensitive departure flow management using 4-D trajectories
- Wireless safety-critical communication services for improved situational awareness and secure information sharing
- Remote tower services for congested, smaller, or remote un-towered airports

SOCIAL / ECONOMIC BENEFIT

- This would reduce the cost and increase the performance of airport communications
- Due to integrated airport surface management, airplanes would not have to turn on engines until necessary. This would save money and decrease the amount of pollution in the air
- Airplanes are safely separated because of the runway incursion alerts
- Time wasted and aggravation due to airport delays would be reduced



NextGen Communication, Navigation, and Surveillance Test Bed at NASA Glenn Research Center. This same wireless communication system has the capability to be used on the moon's surface.

NASA APPLICATIONS

- NASA plans to use the WiMax Wireless Communications for lunar surface communications.

NASA Contact: James Budinger, 3-3496
Company Contact: Dana Hall
Date of Technology: June 2008